Attunity Connect Installation Guide

UNIX

Version 4.1

ATTUNITY

Attunity Connect Installation Guide for UNIX

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UNIX Installation

Requirements

Attunity Connect can be installed on the following UNIX platforms, each with specific requirements:

- Compaq Tru64 UNIX (formerly Digital UNIX)
- Data General (Intel-based)
- Hewlett-Packard
- IBM
- Sun
- Red Hat Linux

Hewlett-Packard Platforms

HP-UX Platforms

The following are the hardware and software you need in order to run Attunity Connect on Hewlett Packard platforms:

Machine – Any Hewlett Packard HP 9000 Series 700 workstation or HP 9000 Series 800 server.

Memory – Memory requirements are dependent on the memory required by the target data sources and applications. Refer to the specific data source or application documentation.

Disk Space – 48MB of disk space.

Operating System – HP/UX Versions 10.2 and up.

❖ To access data sources on 64 bit operating systems (HP-UX 11 and higher) the data source 32 bit client must be used.

HP (Compaq) Tru64 UNIX Platforms

The following are the hardware and software you need in order to run Attunity Connect on Compaq Tru64 UNIX platforms:

Machine – Any Compaq Alpha workstation or server.

Memory – Memory requirements are dependent on the memory required by the target data sources and applications. Refer to the specific data source or application documentation.

Disk Space – 64MB of disk space.

Operating System – Compaq Tru64 UNIX Version 4.0d.

IBM Platforms

The following are the hardware and software you need in order to run Attunity Connect on IBM platforms:

Machine – Any IBM RISC System/6000 (RS/6000) workstation or server.

Memory – Memory requirements are dependent on the memory required by the target data sources and applications. Refer to the specific data source or application documentation.

Disk Space – 48MB of disk space.

Operating System – AIX Version 4.3 or higher.

❖   To access data sources on 64 bit operating systems (AIX 4.4 and higher), the data source 32 bit client must be used.

Linux Platforms

The following are the hardware and software you need in order to run Attunity Connect on Red Hat Linux platforms:

Machine – Any Intel-based Pentium PC.

Memory – Memory requirements are dependent on the memory required by the target data sources and applications. Refer to the specific data source or application documentation.

Disk Space – 48 MB free disk space.

Operating System – Linux (Red Hat, version 6.1 and up).

SUN Platforms

The following are the hardware and software you need in order to run Attunity Connect on Sun platforms:

Machine – Any SUN SPARCstation or SPARCserver.

Memory – Memory requirements are dependent on the memory required by the target data sources and applications. Refer to the specific data source or application documentation.

Disk Space – 48MB of disk space.

Operating System – Solaris Version 2.6 or higher.

❖ To access data sources on 64 bit operating systems (Sun Solaris 2.8 and higher) the data source 32 bit client must be used.

Pre-Installation

Before performing the installation, you need to know the following:

■ The *Root* directory where Attunity Connect will be installed (for example, /nav, /usr/local/lib, etc.)

Attunity Connect software will be installed in a fixed directory (navroot), under the root directory that you choose. An environment variable named NAVROOT will point to this directory after installation. Note that you cannot use / (system root directory) or /var or /tmp as Attunity Connect root directories. Before you choose the directory, make sure it contains enough free disk space for an Attunity Connect installation.

■ Whether the installation source media is removable media or a disk archive file.

If you are installing from the removable media that is *not* a default device in the system, you will need to know the media device name (such as /dev/rmt/0m). See the operating system manuals or ask the system administrator to find out the device name for the site.

If you are installing from the disk archive file, you will need to know the name of the Attunity Connect disk archive file (such as /tmp/nav.2.0.tar).

■ The *Account name* where you want Attunity Connect to run (for example, sys, root, john, etc.). You can use the name of an existing account or create a new account for this purpose. The account must have permission to access the data sources.

■ The shell being used: C-shell, Korn-shell or Bourne-shell. The installation creates a startup file according to the indicated shell.

■ The path of the Java SDK or Java RE, if you want to use JDBC. If you do not have java at the time of installation, this information can be entered later.

■ A valid Attunity Connect Product Authorization Key (PAK), which is required in order to use Attunity Connect. If you do not have a PAK, the installation will complete successfully; however, you will only be able to access the Attunity Connect demo data.

Upgrade Installation

If you are upgrading an existing installation of Attunity Connect, make sure the old NAVROOT is defined to the system. This enables the installation procedure to identify that an existing version exists.

When upgrading, before doing the installation, backup Attunity Connect repository entries, as follows:

```
NAV_UTIL EXPORT ALL SYS out.xml
```

where *out.xml* is the name (including path) of an XML file where the SYS definitions will be written.

Run the following for every data source accessed by Attunity Connect:

```
NAV_UTIL EXPORT ALL dsname dsout.xml
```

where *dsname* is a data source name, as defined in the binding configuration and *dsout.xml* is the name (including path) of an XML file where the data source definitions will be written.

There are two types of upgrade installation:

- An upgrade installation that overwrites the old version.
  - ❖ You must upgrade all client machines as well as the server machine.
- An upgrade installation that saves the old version, **allowing you to continue using client machines with a previous version of Attunity Connect.**

These different upgrade installations are described in the following sections.

Upgrading and Overwriting the Old Version

To upgrade the version of Attunity Connect on both server and client machines, you must prevent all users from running the Attunity Connect server during the upgrade installation.

❖ Backup Attunity Connect software before installing the new version.

The file NAVROOT/bin/nav_server remains unchanged during an upgrade installation (so that changes previously made to this file are not lost during the upgrade). If you want the new installation version of this file, delete the file manually before starting the installation.

You must have write permission on all the old Attunity Connect files and the directories where they reside.

Upgrading a Server While Saving the Old Version

If you want to upgrade the server version of Attunity Connect while keeping the client machines with a previous version, install the new version of Attunity Connect in a directory other than that of the existing version.

Clients running either the old version or the new version of Attunity Connect are now able to connect to the daemon successfully.

Installation

The Attunity Connect installation consists of two steps:

1. Loading the Attunity Connect installation utility.

2. Running the installation utility and answering its prompts. Note that you can run nav_install as a super-user (root) or as a regular user.

❖ If you are upgrading Attunity Connect, it is recommended that you run nav_install as a super-user. However, if you choose to start nav_install as a regular user, make sure that you have write permission on the directory where you want to install Attunity Connect.

There are a few functions that the Attunity Connect installation utility cannot perform when you do not start it as a super-user. In this case, nav_install displays instructions regarding what you need to do after the installation procedure finishes. Please read these messages carefully: for Attunity Connect to function properly, you must follow these instructions.

Loading the Installation Utility

Complete the following steps prior to loading the Attunity Connect utility:

1. Transfer the TAZ file to the system.

2. Rename the file with the following command:

```
mv acxxxx-yyyy.taz acxxxx-yyyy.tar.Z
```

where:

xxxx is version information (for example, 4100).

yyyy is the UNIX platform (for example, HPUX).

3. Decompress the ac*xxxx*-yyyy.tar.Z file with the following command:

```
uncompress acxxxx-yyyy.tar.Z
```

This results in a tar file, ac*xxxx*-yyyy.tar, which contains the Attunity Connect installation kit.

4. Execute the command appropriate for the type of media you are using for installation. Since the media can be one of three types, you must select one of the following options:

- If you are installing Attunity Connect from the disk file, type the following at the shell prompt:

```
tar xvf tar_file_name nav_install
```

where *tar_file_name* is the name of the disk archive file. For example:

```
tar xvf ac.41.tar nav_install
```

```
tar xvf /tmp/ac.41.tar nav_install
```

- If you are installing Attunity Connect from removable media, mount the release media on the drive and type the following at the shell prompt:

```
tar xvf device_name nav_install
```

where *device_name* is the name of the device on which you mounted the media.

- If you are installing Attunity Connect on a system default device, you can omit the *device_name*.

For example:

```
tar xvf /dev/rmt/0m nav_install
```

```
tar xvf /dev/rmt5z nav_install
```

The installation utility returns a message similar to this:

```
x nav_install, nnnnn bytes, mmmm tape blocks
```

This message indicates that the Attunity Connect installation program nav_install has been successfully restored and that you can go to the next step. Restoring nav_install from the disk archive file takes approximately 20 seconds. Restoring the installation program from a removable media can take several minutes. If you don't see any reaction for a long time, cancel the tar program using the BREAK key sequence (usually <Ctrl-C>), and check the name of the device again with the system administrator.

5. At the system prompt, create a directory.

This directory will contain the nav_install program and (after the installation completes) an Attunity Connect installation log file.

Alternatively, you can use an existing directory for which you have write privileges. (You may use /tmp, for example.)

6. Go to the directory you have created or to the existing directory you have chosen.

Running the Installation Utility

▶ **To run the installation utility:**

1. At the shell prompt, type the following to run the installation utility:

```
./nav_install
```

This starts the installation program, which displays prompts leading you through the installation process. As a rule, each prompt contains a full list of choices with explanations and detailed messages that tell you what to do. The message may contain a short list of choices (in parentheses) and a default value (in brackets). If you want to accept the default value, press <**Return**>. To answer *Yes*, *No* or *Quit*, enter the first letter (uppercase or lowercase) of the response.

2. Follow the installation procedure to install Attunity Connect.

The following table displays installation steps and information you need to specify for each of the Attunity Connect installation steps.

Step	Description
ATTU01A: Please enter the name of the .tar file containing the Attunity Connect software [./ ac4100-sunsol.tar]	Enter the full path of the disk archive file.
ATTU02A: The Attunity Connect software will be installed in a fixed directory (named "navroot"), under the root directory of your choice. You need at least 16000 kbytes of free disk space to install the software. Please enter the root directory name [/users/nav]	You must install Attunity Connect software in a directory named *navroot*. This directory can be placed in any path in the system, with the exception of the root directory (/), and the directories /tmp and /var. The environment variable NAVROOT points to the directory navroot after installation. If the environment variable NAVROOT is already defined when you run nav_install, the default value for this question will be taken from NAVROOT. If the $NAVROOT directory already exists, you need to confirm that the directory can be overwritten. In this case, the new files replace the old files of the same names, and all the site-specific files created under $NAVROOT after the previous installation remain unchanged.

Step	Description

`The Attunity Connect software`
`installation directory`
`(NAVROOT):`
`/attunity/connect/navroot`
`Please confirm (Yes/No/Quit)`
`[Yes]:`
	If you are satisfied with the choice of the Attunity Connect root directory, press <Enter> to continue with the Attunity Connect installation. If you want to choose another directory, answer *No* this question. If you want to exit the installation entirely, answer *Quit*.

`ATTU03A: Supply the account`
`name where you want Attunity`
`Connect to run. This is the`
`default that you can change`
`after the installation by`
`editing the daemon`
`configuration.`
`Please enter the account name`
`[nav]:`
`Please confirm (Yes/No/Quit)`
`[Yes]:`
	The account name is used to set the AnonymousClientAccount parameter for the IRPCD daemon in the daemon configuration. You can change the account after installation. For more detailed information, see "Daemon" in *Attunity Connect Reference*.

`ATTU04A: Please choose the`
`shell which do you want the`
`Attunity Connect server to run`
`under:`
 	
`   1.  C-shell      (/bin/csh)`
`   2.  Korn-shell  (/bin/ksh)`
`   3.  Bourne-shell (/bin/sh)`
`Please enter your choice (1/2/`
`3/Quit) [1]:`
	The installation creates a startup file for Attunity Connect based on the shell being used.

`ATTU05A: Please enter the path`
`name of your Java SDK or Java`
`RTE installation [/opt/java]:`
	In order to use the Attunity Connect JDBC driver, you need a Java Virtual Machine to be running. Attunity Connect updates the JAVAPATH environment variable with the supplied path.

Step	Description

`ATTU06A: Adding and updating Attunity Connect's configuration on this machine, from a remote Attunity administration console, can only be done by someone defined as an administrator for Attunity Connect on this machine.`
 	
`Enter a valid user name for an Attunity Connect administrator [All]:`
	In order to manage Attunity Connect on this machine from Attunity Connect Studio, you need to enter a user account of a user who will have administrative authorization, or press Enter to enable any user to administer Attunity Connect on this machine. The administrative rights can be changed from within Attunity Connect Studio after the installation or on this machine using NAV_UTIL ADD_ADMIN as described in *Attunity Connect Reference*.

Attunity Connect should now successfully install on the system.

❖ If the installation procedure fails, see the log file named nav_install_*date*.log in the working directory. If the log file does not enable you to resolve the problem, contact Attunity Connect support.

Post-Installation

The following procedures are performed after a successful installation to configure Attunity Connect:

- Setting the Attunity Connect Server Script
- Starting the Attunity Connect Daemon
- Registering Attunity Connect
- Setting the Language

Additionally, if the installation is an upgrade from a previous version, the following upgrade procedure is performed:

- Upgrading Attunity Connect from a Previous Version

During the installation the NAVROOT environment variable is set to the directory where Attunity Connect is installed. This path should also be set in the library path variable.

Informix Note – The default driver supplied by Attunity Connect is for use with Informix version 7.x. If the version of Informix you are using is version 9 or higher, overwrite the nvdb_inf shareable image with the nvdb_inf9 shareable image. You can revert back to the default by overwriting the nvdb_inf shareable image with the nvdb_inf7 shareable image. All three files (nvdb_inf, nvdb_inf7 and nvdb_inf9) are in

NAVROOT/lib, where NAVROOT is the directory where Attunity Connect is installed.

Sybase Note – The default driver supplied by Attunity Connect is for use with Sybase OpenClient version 10.0.4, to access versions of Sybase prior to and including Sybase version 11.1.1. If the version of Sybase you are using is greater than version 11.1.1, overwrite the nvdb_syb shareable image with the nvdb_syb115 shareable image. You can revert back to the default by overwriting the nvdb_syb shareable image with the nvdb_syb110 shareable image. All three files (nvdb_syb, nvdb_syb110 and nvdb_syb115) are in NAVROOT/lib, where NAVROOT is the directory where Attunity Connect is installed.

Setting the Attunity Connect Server Script

The program that manages Attunity Connect servers (nav_server) is accessed by a symbolic link to a file for the C-shell, Bourne and Korn shells. To set up nav_server, perform the following procedure:

❖ Manually make any changes that were made to an old version of (nav_server) that you want in the new version.

1. Delete the existing link to nav_server as follows:

   `rm nav_server`

2. Link to the appropriate version of nav_server as follows:

   C-shell: `ln -s nav_server.csh nav_server`

   Bourne: `ln -s nav_server.sh nav_server`

   Korn: `ln -s nav_server.ksh nav_server`

   ❖ Use a symbolic link as shown instead of renaming files.

The Attunity Connect NAV_LOGIN procedure defines the default Attunity Connect environment when Attunity Connect runs. If you want site-dependent variables to be included in the Attunity Connect environment, create a file called SITE_NAV_LOGIN and save this file in the BIN directory under the Attunity Connect root directory. NAV_LOGIN runs SITE_NAV_LOGIN automatically.

NAV_LOGIN must be invoked to run Attunity Connect. Ensure that NAV_LOGIN is invoked by invoking it from the user's login script.

The command line for invoking NAV_LOGIN varies according to the shell the user is running. The following table shows the different options:

Shell	nav_login Command
CSH	source *root*/bin/nav_login

Shell	nav_login Command
Bourne Korn	**.** *root*/bin/nav_login.sh

❖ *root* represents the root directory of the Attunity Connect installation. After the login procedure is executed, the environment variable NAVROOT points to this root directory.

❖ For the Bourne and Korn shells, only nav_login.sh (and not other utilities, like nav_util) requires a period and space (as shown in the above table).

Make sure that users have read and execute permission on the Attunity Connect files (if necessary, use the chmod command to change the permissions).

If you intend to access a database that requires initialization, perform this initialization in the SITE_NAV_LOGIN file. For example, with Oracle, ORACLE_HOME and ORACLE_SID must be defined and oraenv (or coraenv) must be run.

Starting the Attunity Connect Daemon

The Attunity Connect IRPCD daemon must run on a server for client/ server access to Attunity Connect. To allow automatic client/server access to Attunity Connect, you need to start the daemon at system boot time. To start the daemon at system boot time, add the command invoking IRPCD to the /etc/inittab file.

Start the daemon from as the super user.

The following table describes which lines should be added on the various UNIX systems supported by Attunity Connect:

System	Automatically Starting the Attunity Connect Daemon
Sun Solaris	nv:3:once:*navroot*/bin/irpcd start >/dev/console 2>&1
HP/UX	nav:3:once:*navroot*/bin/irpcd start >/dev/console 2>&1
AIX	nav:2:once:*navroot*/bin/irpcd start >/dev/console 2>&1
Compaq Tru64 UNIX	nv:2:once:*navroot*/bin/irpcd start >/dev/console 2>&1
Linux	nv:3:once:*navroot*/bin/irpcd start >/dev/console 2>&1

The symbol *navroot* should be replaced with the directory where Attunity Connect is installed.

❖   Add the line to start the daemon to the end of the /etc/inittab file.

Registering
Attunity Connect

You need to register the copy of Attunity Connect before you can access data sources on this machine. To use Attunity Connect you must have a Product Authorization Key (PAK) file, called *license.pak*. A PAK is normally supplied by the Attunity Connect vendor. It contains details such as the product expiration date (if any), the maximum number of concurrent sessions allowed, which drivers you are authorized to use, and other information. The PAK is supplied to you in electronic form, and you must register it before you can use the product.

❖   If you upgraded a previous version of Attunity Connect, a new license is automatically registered.

▶   **To register a Product Authorization Key:**

1. Save the license to a file with an extension other than PAK (such as license.txt). This prevents the current license from being manually overwritten.

2. Make sure that NAV_LOGIN has been run (see "Setting the Attunity Connect Server Script" on page 10).

3. Run the following from an Attunity Connect-enabled account:

    ```
    nav_util register license
    ```

    where *license* is the full name including the path of the license file.

    You now have the new license file (license.pak) residing in the DEF directory under NAVROOT, where you installed Attunity Connect.

This procedure registers a new license or updates an existing license on this machine.

You can display the license details by running the following command:

```
nav_util check license
```

The following type of information is returned:

```
Active licensed items are:

APIs: All
Providers: All
Features: All
Options: None
Concurrent Users: 100
```

❖   You can register this machine from a PC by running the following:

```
nav_util register license daemon-location
```

where *daemon-location* is the location of the UNIX machine.

Setting the Language   National Language Support (NLS) is provided by Attunity Connect for the following languages:

- English (the default)
- Hebrew
- Japanese
- Korean
- Simple Chinese
- Traditional Chinese

The language is specified via the following Attunity Connect environment settings:

- language
- codepage

For full details of NLS, refer to "National Language Support (NLS)" in *Attunity Connect Guide*.

▶ **To define the language and codepage environment settings:**

1. Run the following command:

```
nav_util edit bindings
```

The XML representation of the Attunity Connect binding information is displayed, including some XML similar to the following:

```
<environment name='NAV'>
  <misc codePage='' language=''/>
  <queryProcessor/>
  <optimizer goal='none' preferredSite='server'/>
  <transactions/>
  <odbc/>
  <oledb/>
  <tuning/>
</environment>
```

2. In the language field (bolded in the above XML), specify one of the following for the language required:

   HEB – Hebrew

   JPN – Japanese

   KOR – Korean

SCHI – Simple Chinese

TCHI – Traditional Chinese

3. Optionally, in the codePage field (bolded in the above XML), specify the codepage required.

   You can skip this step, and just specify a language (see the previous step). In this case, a default codepage is used. The following shows the default codepages:

   HEB – IW8ISO8859P8

   JPN – JA16SJIS (except for Sun Solaris: JA16EUC)

   KOR – KO16KSC5601

   SCHI – ZHS16CGB231280

   TCHI – ZHT16BIG5

   The following table lists the supported codepages according to language:

Language	Supported Codepage Values	Description
Hebrew	IW7IS960	Israeli standard 960 7-bit Latin/Hebrew (ASCII 7-bit)
	IW8ISO8859P8	ISO 8859-8 Latin/Hebrew (ASCII 8-bit) (also known as codepage 862)
Japanese	JA16SJIS or SJIS	Shift-JIS 16-bit
	JA16EUC or EUC	EUC 16-bit
	JA16VMS or SDECK	Super DEC Kanji (EUC+) 16-bit
Korean	KO16KSC5601	KSC5601 16-bit
Simple Chinese	ZHS16CGB231280	16-bit Simple Chinese
Traditional Chinese	ZHT16BIG5	BIG5 16-bit Traditional Chinese

Upgrading Attunity Connect from a Previous Version

Import all the XML files exported prior to doing the installation, as described in "Upgrade Installation" on page 4. Run:

```
NAV_UTIL IMPORT xml_file_name
```

where *xml_file_name* is the name (including path) of an XML file where the exported information was written.

Silent Installation

A silent installation enables you to perform an installation without having to respond to any prompts. Initially you perform a normal installation and capture in a file, the responses to the installation prompts. You can then run the installation on another machine using the file containing the captured responses.

▶ **To install Attunity Connect silently (without prompts), do the following:**

1. Create a response file, by running the installation with the following arguments:

   ```
   ./nav_install -r filename [-l logfile]
   ```

   where:

   filename is the full path and name of the response file.

   logfile is the installation log file. If you do not specify this parameter, Attunity Connect creates a default installation log file named nav_install_YY_MM_DD.log, which resides in the directory where the installation takes place.

   An Attunity Connect installation proceeds and the responses are recorded in the response file.

   Example

   ```
   ./nav_install -r /tmp/nav/silentac
   ```

2. Run the silent installation with the following command:

   ```
   ./nav_install -a filename [-l logfile]
   ```

   where:

   filename is the full path and name of the response file created in step 1.

   logfile is the installation log file. If you do not specify this parameter, Attunity Connect creates a default installation log file named nav_install_YY_MM_DD.log, which resides in the directory where the installation takes place.